WEEKLY PROGRESS UPDATE FOR MARCH 10 – MARCH 14, 2003

EPA REGION I ADMINISTRATIVE ORDERS SDWA 1-97-1019, 1-2000-0014, & BOURNE-BWSC 4-15031

MASSACHUSETTS MILITARY RESERVATION TRAINING RANGE AND IMPACT AREA

The following summary of progress is for the period from March 10 through March 14, 2003.

1. SUMMARY OF ACTIONS TAKEN

Drilling progress as of March 14 is summarized in Table 1.

	Table 1. Drilling progr	ess as of Ma	rch 14, 2003	
Boring Number	Purpose of Boring/Well	Total Depth (ft bgs)	Saturated Depth (ft bwt)	Completed Well Screens (ft bgs)
MW-262	Demo Area 2 (D2P-2)	280	59	226-236
MW-263	J-2 Range (J2P-17)	270	160	
MW-264	J-3 Range (J3P-35)	210	176	
	ground surface water table			

Completed well installation of MW-262 (D2P-2) and continued drilling of MW-263 (J2P-17) and MW-264 (J3P-35). Well development continued for newly installed wells.

Samples collected during the reporting period are summarized in Table 2. Groundwater profile samples were collected from MW-262, MW-263, and MW-264. Groundwater samples were collected from Bourne water supply and monitoring wells, from recently installed wells, and as part of the Site-Wide Perchlorate Characterization. Soil samples were collected from soil cuttings of recently installed wells.

The following are the notes from the March 13, 2003 Technical Team meeting of the Impact Area Groundwater Study Program office at Camp Edwards:

<u>Participants</u>

Bill Gallagher (IAGWSPO) Hap Gonser (AEC) Ben Gregson (IAGWSPO) LTC Bill FitzPatrick (E&RC) Todd Borci (EPA) Meghan Cassidy (EPA) Desiree Moyer (EPA) Jane Dolan (EPA) Len Pinaud (MADEP) Dave Williams (MDPH) Mark Panni (MADEP) Gina Kaso (ACE) Shelia Holt (ACE-phone) Ed Wise (ACE) Heather Sullivan (ACE-phone) Rob Foti (ACE) Jay Clausen (AMEC) Kim Harriz (AMEC) Larry Pannell (Jacobs-phone)

Punchlist Items

#9 Provide info on rounds containing perchlorate fired at Camp Edwards prior to the 1980's (EPA). Desiree Moyer discussed the M804A1 rounds with Nick laiennaro (ACE). These

LTR rounds, which contain twice as much perchlorate as the M804 rounds, were used at MMR in the 1980s. Mr. laiennaro to check with Range Control on how many rounds were fired. This information to be included on an updated perchlorate table. Bill Gallagher (IAGWSPO) indicated Mr. laiennaro had indicated he had no knowledge of the firing of mortar or LTR rounds containing perchlorate prior to the 1980s.

MSP3 and Southeast Ranges Update

Rob Foti (ACE) provided an update on the MSP3 task and SE Ranges fieldwork.

- Ox Pond A draft map of findings was emailed 2/20. Based on EPA comments, the anomaly pick map was revised and distributed at the Tech meeting. Written responses to EPA comments will be provided shortly. Mr. Foti to check if the type of rifle smoke grenades found in the area contain perchlorate.
- <u>Gun&Mortar</u> Anomaly excavations were completed at MP-4 and trails, GP-7, Former F and trails, GP-11 and trails, and MP-7. Currently conducting work at GP-16 and trails and GP-22. Draft table of findings distributed at meeting. Significant findings were supplemental charges found at GP-16. Soil samples were collected in the area of the charges discovery.
- <u>Former Demo sites (Inactive Demo sites)</u> A new figure showing anomaly picks was distributed via email last week. Copies of the map were provided at the Tech meeting.
- <u>ASP</u> Tetra Tech is preparing to implement the supplemental work plan. The EM61 survey will be attempted without grubbing, if possible, at the Witness #9 location, north of Area E, and south of Area B. The area south of B may prove be too rocky and difficult to survey.
- NBC Ranges Tetra Tech is in the process of separating the EM61 and Schonstedt survey data on two figures. When the figures are completed, the data will be forwarded to the agencies.
- <u>J-3 Range Hillside/Barrage Rocket Sites</u> Operations that had ceased due to safety concerns will resume upon snow pack melting. Area is being checked daily. Possible start by next week.
- <u>SE Ranges Field Work</u> Drilling at J3P-35 (MW-264) and J2P-17 (MW-263) continues. Sampling of newly installed wells continues.
- Gina Kaso (ACE) acknowledged the Army/NGB were moving ahead with some MSP3 work without workplan approval from the agencies, in order to optimize the use of contracted funds.

ROAs Status and Drilling Schedule

Heather Sullivan reviewed information relative to the status of ROAs and the Drilling Schedule.

- Tables with ROA status and the drilling schedule were provided in the Weekly Update email.
- There are no crucial ROAs pending. The third drill rig is installing MW-262 (D2P-2).
- Bill Gallagher (IAGWSPO) indicated there are not enough ROA approved locations to
 justifying mobilizing a fourth drill rig. The IAGWSPO has asked John Rice (AMEC) to look
 into the future potential of utilizing a fourth drill rig based on upcoming drilling of new
 proposed wells (not yet with agency approval) at the SE Ranges, Northwest Corner and the
 Central Impact Area.
- In response to EPA's request for the Corps to rethink the approval/ROA submittal process to
 expedite the drilling schedule, Ms. Sullivan offered to identify currently proposed wells that
 the agencies and IAGWSPO agree upon (particularly SE Ranges wells), and prepare ROAs
 for these wells prior to the full Workplan approval.
- EPA indicated approval for CIAP-29 and CIAP-30 had been provided at the 3/6 Tech meeting.
- The EPA will try to provide comments on the proposed SE Ranges wells shortly, and requested that the drilling schedule be discussed again in two weeks.

Northwest Corner of Camp Edwards

Bill Gallagher (IAGWSPO) discussed the information related to the investigation of the Northwest Corner of Camp Edwards.

- Perchlorate analytical results for HW-1 showed unvalidated detections of perchlorate at 0.96/0.85 ppb. Explosives results and results for 95-15B are pending.
- There is some confusion regarding the location of some of the 95-15 wells and the IAGWSPO is attempting to obtain the IRP Report regarding these wells from Rose Forbes (AFCEE), but so far has been unsuccessful.
- Todd Borci (EPA) explained the EPA felt it was important to delineate the downgradient extent of the contamination associated with the perchlorate detection at 4036009DC. Therefore, they proposed the installation of a monitor well south of 4036009DC along the forward particle track from 4036011 should be the priority. In their opinion, wells on the base boundary were too far removed from the contamination to provide reliable monitoring points without more information.
- Len Pinaud (MADEP) explained the MADEP thought a well was needed closer (within 1000 ft) to well 4036009DC than the proposed location (NWP-1) on the backtrack from that well.
 The location of NWP-2 (at the base boundary and on the particle backtrack from 4036011) was acceptable.
- Mr. Gallagher emphasized that the proposed locations were selected to focus the
 investigation to be protective of the current public supply well 4036011, as opposed to
 delineating the contamination near its discharge point at the Cape Cod Canal. In addition,
 the investigation could proceed more quickly if drilling took place on base instead of private
 property.
- Further discussion of possible drilling locations to be conducted at the Project Manager's meeting scheduled later in the day.

Central Impact Area Perchlorate Plume

Bill Gallagher (IAGWSPO) and Jay Clausen (AMEC) discussed information relative to developing a plume map for the Central Impact Area.

- A perchlorate plume map overlain with forward particle tracks from known perchlorate sources, marked with 10 yr time steps, was distributed. The particle tracks were terminated at 20 years, under the assumption that LTR rounds that were used beginning in 1984 were likely the most significant source of perchlorate in the Central Impact Area. The figure illustrated that the current known perchlorate plume extent based on monitoring well results corresponded to the perchlorate extent predicted by the AMEC MMR-9 Regional Groundwater model, assuming LITR rounds, first fired in 1984, represented the primary source of perchlorate.
- AMEC also to provide information on where these particle tracks intersect downgradient well screens.
- EPA's main concern with the plume delineation was that there could be downgradient slugs
 of perchlorate like the one at 4036009DC, which originated in the Central Impact Area.
 However, no monitoring wells were installed west of MW-103, MW-123, MW-124, and MW183, which are located on Frank Perkins Road.
- The Army/NGB's position was that distant areas, such as the area of well 4036009DC, would be investigated separately, and should not be included as part of the Central Impact Area Operable Unit. As delineated, the perchlorate plume was contained within the boundaries of the Central Impact Area explosives plume.
- Len Pinaud (MADEP) was also concerned about some of the low level detections of perchlorate that fell just outside the RDX plume footprint, such as those at MW-15 (assumed source at Mortar Target 9) and MW-222 (possibly originating at the J-1 Range).
- Hap Gonser (IAGWSPO) acknowledged that while the current plan is adequate to allow moving forward with the Phase II Report, the wording in the IAGWSP letter regarding the

- completion of the groundwater investigation for the Central Impact Area could be modified to acknowledge that if additional information indicates the need, additional investigation work may be warranted.
- EPA to send an email documenting their concerns and any additional comments in one week. MADEP to discuss how the investigation fits into the MCP process in conjunction with the MCP discussion being held after the Tech meeting.

Bourne Update

Bill Gallagher (IAGWSPO) summarized new information regarding the Bourne investigation.

- The data validators assessed the detection of perchlorate in M-3 as valid. The
 chromatogram for the duplicate sample showed a peak at the retention time of perchlorate
 that was quantified below the MDL of the method. The perchlorate result for MW-233M3
 was incorrectly reported as not detected in the weekly Bourne table; the table will be
 revised.
- UXO Clearance was completed at BP-2 and BP-5.
- The BWD indicated they would provide weekly updates on wells being installed around Base Water Supply Well, WS-4.
- Terry Martin (MADEP Water Supply) indicated the MADEP chemists would receive the data from the Perchlorate MDL study early next week and would provide information by Tuesday, 3/18.
- At the biweekly meeting with the BWD, there were discussions regarding discontinuing the VOC/explosives analysis for the Bourne wells and reducing the sampling frequency of the wells. These issues to be discussed further after receipt of formal comments on the Bourne Response Plan MOR from the BWD and the agencies.

Miscellaneous

- Jane Dolan requested information on the pump test results for MW-80 and a date for the results from the small scale column test.
- Jane Dolan asked what the schedule was for resuming surface water sampling at Snake Pond.
- Todd Borci and Len Pinaud requested the agencies be informed of any activities related to
 prescribed burning at Camp Edwards, even training. Ben Gregson (IAGWSPO) assured
 them that all prescribed burn activities were being coordinated with the IAGWSPO and he
 would notify the agencies of any such activities, including training, that were planned to be
 conducted in the Training Ranges or Impact Area.

2. SUMMARY OF DATA RECEIVED

Rush data are summarized in Table 3. These data are for analyses that are performed on a fast turnaround time, typically 1-5 days. Explosive analyses for monitoring wells, and explosive and volatile organic compound (VOC) analyses for groundwater profile samples, are conducted in this timeframe, as well as any analyses pursuant to a special request. The rush data are not validated, but are provided as an indication of the most recent preliminary results. Table 3 summarizes only detects, and does not show samples with non-detects.

The status of the explosive detections with respect to confirmation using Photo Diode Array (PDA) spectra is indicated in Table 3. PDA is a procedure that has been implemented for the explosive analysis, to reduce the likelihood of false positive identifications. Where the PDA status is "YES" in Table 3, the detected compound is verified as properly identified. Where the status is "NO", the identification of an explosive has been determined to be a false positive. Where the status is blank, PDA has not yet been used to evaluate the detection, or PDA is not applicable because the analyte is a VOC or perchlorate. Most explosive detections verified by PDA are confirmed to be present upon completion of validation. Table 3 includes the following detections:

Table 3 includes detections from the following areas:

Bourne Area

- Groundwater samples from 02-13M1 and duplicate had detections of perchlorate. The results were similar to the previous sampling rounds.
- A groundwater sample from 00-2 had a detection of chloroform.
- An influent sample from a pump test at MW-80M1 had a detection of perchlorate that was similar to the previous sampling rounds at this well.

Demo Area 1

• A groundwater sample from MW-258M2 had detections of perchlorate. This is the first sampling event and the results were consistent with the profile results.

Demo Area 2

 Profile samples from MW-262 (D2P-2) had a detection of RDX. RDX was detected and confirmed by PDA spectra, but with interference, at 9 feet below the water table. The well screen was set at the depth (5 to 15 ft bwt) corresponding to the projected depth of the particle track originating from the center of Demo Area 2.

DELIVERABLES SUBMITTED

Weekly Progress Update for March 3 – March 7, 2003

Draft IAGWSP Technical Team Memorandum 03-1 Saturated Zone Flow & 03/13/2003

Transport Modeling Summary Report

3. SCHEDULED ACTIONS

Scheduled actions for the week of March 17 include complete drilling of MW-263 (J2P-17) and MW-264 (J3P-35), and commence drilling of MW-265 (J1P-16). Groundwater sampling at Bourne water supply and monitoring wells, at newly installed wells, and as part of the Site Wide Perchlorate Characterization will continue.

4. SUMMARY OF ACTIVITIES FOR DEMO 1

Additional delineation of the downgradient portion of the groundwater plume is being conducted prior to finalizing the Feasibility Study for the Groundwater Operable Unit and as the Interim Action for groundwater remediation is being designed.

Pumping and treating groundwater near the toe of the Demo Area 1 plume and at Frank Perkins Road has been selected as an Interim Action to address the Demo Area 1 Groundwater Operable Unit. A Response to Comments Letter (RCL) addressing EPA and DEP comments on the Demo 1 Groundwater RRA/RAM Plan was submitted on March 14, 2003. Another Draft RRA/RAM Plan, prepared to address soil contamination, was submitted on February 19th. The informal comment period on the Draft Soil RRA/RAM ended on March 11, 2003.

OGDEN_ID	GIS_LOCID	LOGDATE	SAMP_TYPE	SBD	SED	BWTS	BWTE
G262DFE	FIELDQC	03/10/2003	FIELDQC	0	0		
G263DHE	FIELDQC	03/12/2003	FIELDQC	0	0		
G263DHT	FIELDQC	03/12/2003	FIELDQC	0	0		
G263DLE	FIELDQC	03/13/2003	FIELDQC	0	0		
G263DLT	FIELDQC	03/13/2003	FIELDQC	0	0		
G263DPT	FIELDQC	03/14/2003	FIELDQC	0	0		
G264DHT	FIELDQC	03/11/2003	FIELDQC	0	0		
G264DKE	FIELDQC	03/11/2003	FIELDQC	0	0		
G264DQE	FIELDQC	03/14/2003	FIELDQC	0	0		
SDW261160-E	FIELDQC	03/11/2003	FIELDQC	0	0		
W234M1T	FIELDQC	03/10/2003	FIELDQC	0	0		
4036000-01G-A	4036000-01G	03/11/2003	GROUNDWATER	38	69.8	6	12
4036000-03G-A	4036000-03G	03/11/2003	GROUNDWATER	50	60	6	12
4036000-04G-A	4036000-04G	03/11/2003	GROUNDWATER	54.6	64.6	6	12
4036000-06G-A	4036000-06G	03/11/2003	GROUNDWATER	108	128	6	12
SDW261160-A	SDW261160	03/11/2003	GROUNDWATER	150	160	10	20
W02-07M1A	02-07	03/12/2003	GROUNDWATER	135	145	101.14	111.14
W02-07M2A	02-07	03/12/2003	GROUNDWATER	107	117	72.86	82.86
W02-07M3A	02-07	03/12/2003	GROUNDWATER	47	57	13	23
W02-08M1A	02-08	03/11/2003	GROUNDWATER	108	113	86.56	91.56
W02-08M1A	02-08	03/13/2003	GROUNDWATER	108	113	86.56	91.56
W02-08M1D	02-08	03/13/2003	GROUNDWATER	108	113	86.56	91.56
W02-08M2A	02-08	03/13/2003	GROUNDWATER	82	87	60.65	65.65
W02-08M3A	02-08	03/13/2003	GROUNDWATER	62	67	40.58	45.58
W02-09M1A	02-09	03/12/2003	GROUNDWATER	74	84	65.26	75.26
W02-09M2A	02-09	03/12/2003	GROUNDWATER	59	69	50.3	60.3
W02-09SSA	02-09	03/12/2003	GROUNDWATER	7	17	0	10
W02-10M1A	02-10	03/11/2003	GROUNDWATER	135	145	94	104
W02-10M2A	02-10	03/12/2003	GROUNDWATER	110	120	68.61	78.61
W02-10M3A	02-10	03/12/2003	GROUNDWATER	85	95	43.65	53.65
W02-12M1A	02-12	03/11/2003	GROUNDWATER	109	119	58.35	68.35
W02-12M2A	02-12	03/11/2003	GROUNDWATER	94	104	43.21	53.21
W02-12M3A	02-12	03/11/2003	GROUNDWATER	79	89	28.22	38.22
W02-13M1A	02-13	03/11/2003	GROUNDWATER	98	108	58.33	68.33

Profiling methods include: Volatiles and Explosives

Groundwater methods include: Volatiles, Semivolatiles, Explosives,

Pesticides, Herbicides, Metals, and Wet Chemistry

Other Sample Types methods are variable

SBD = Sample Begin Depth, measured in feet bgs

SED = Sample End Depth, measured in feet bgs

BWTS = Depth below water table, start depth, measured in feet

OGDEN_ID	GIS_LOCID	LOGDATE	SAMP_TYPE	SBD	SED	BWTS	BWTE
W02-13M2A	02-13	03/11/2003	GROUNDWATER	83	93	44.2	54.2
W02-13M2D	02-13	03/11/2003	GROUNDWATER	83	93	44.2	54.2
W02-13M3A	02-13	03/11/2003	GROUNDWATER	68	78	28.3	38.3
W02-15M1A	02-15	03/12/2003	GROUNDWATER	125	135	75.63	85.63
W02-15M2A	02-15	03/13/2003	GROUNDWATER	101	111	51.5	61.5
W02-15M3A	02-15	03/13/2003	GROUNDWATER	81	91	31.4	41.4
W15M1A	MW-15	03/10/2003	GROUNDWATER	163	173	55	65
W15M2A	MW-15	03/10/2003	GROUNDWATER	144	154	36	46
W180M2A	MW-180	03/10/2003	GROUNDWATER	195	205	34.5	44.5
W180M2D	MW-184	03/10/2003	GROUNDWATER	126	136	0	10
W184M1A	MW-184	03/10/2003	GROUNDWATER	186	196	58.2	68.2
W184M2A	MW-184	03/10/2003	GROUNDWATER	126	136	0	10
W213M1A	MW-213	03/13/2003	GROUNDWATER	133	143	85.01	95.01
W213M2A	MW-213	03/14/2003	GROUNDWATER	89	99	41.15	51.15
W213M3A	MW-213	03/14/2003	GROUNDWATER	77	82	29.38	34.38
W218M1A	MW-218	03/12/2003	GROUNDWATER	128	133	123	128
W218M2A	MW-218	03/12/2003	GROUNDWATER	98	103	93	98
W218M3A	MW-218	03/12/2003	GROUNDWATER	78	83	73	78
W226M1A	MW-226	03/11/2003	GROUNDWATER	285	295	172	182
W234M1A	MW-234	03/10/2003	GROUNDWATER	130	140	25.3	35.3
W234M2A	MW-234	03/10/2003	GROUNDWATER	110	120	1.6	11.6
W257M1A	MW-257	03/10/2003	GROUNDWATER	290	300	145.52	155.52
W258M3A	MW-258	03/10/2003	GROUNDWATER	77	82	32.25	37.25
W69M2A	MW-69	03/10/2003	GROUNDWATER	153	163	40	50
W81DDA	MW-81	03/13/2003	GROUNDWATER	184	194	156	166
W81M1A	MW-81	03/13/2003	GROUNDWATER	128	138	100	110
W81M2A	MW-81	03/14/2003	GROUNDWATER	83	93	55	65
W81M3A	MW-81	03/13/2003	GROUNDWATER	53	58	25	30
W81SSA	MW-81	03/14/2003	GROUNDWATER	25	35	0	10
W82DDA	MW-82	03/13/2003	GROUNDWATER	125	135	97	107
W82M1A	MW-82	03/13/2003	GROUNDWATER	104	114	76	86
SC15701	SOIL CUTTING	03/11/2003	IDW				
SC24201	SOIL CUTTING	03/11/2003	IDW				
SC24301	SOIL CUTTING	03/10/2003	IDW				

Profiling methods include: Volatiles and Explosives

Groundwater methods include: Volatiles, Semivolatiles, Explosives,

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OGDEN_ID	GIS_LOCID	LOGDATE	SAMP_TYPE	SBD	SED	BWTS	BWTE
SC24401	SOIL CUTTING	03/10/2003	IDW				
SC24501	SOIL CUTTING	03/10/2003	IDW				
SC24701	SOIL CUTTING	03/10/2003	IDW				
SC24801	SOIL CUTTING	03/10/2003	IDW				
SC24901	SOIL CUTTING	03/11/2003	IDW				
SC25201	SOIL CUTTING	03/10/2003	IDW				
SC25301	SOIL CUTTING	03/10/2003	IDW				
SC25401	SOIL CUTTING	03/10/2003	IDW				
SC25501	SOIL CUTTING	03/10/2003	IDW				
SC25601	SOIL CUTTING	03/10/2003	IDW				
SC25701	SOIL CUTTING	03/10/2003	IDW				
SC25801	SOIL CUTTING	03/10/2003	IDW				
G262DDA	MW-262	03/10/2003	PROFILE	260	260	39.45	39.45
G262DEA	MW-262	03/10/2003	PROFILE	270	270	49.45	49.45
G262DFA	MW-262	03/10/2003	PROFILE	280	280	59.45	59.45
G262DFD	MW-262	03/10/2003	PROFILE	280	280	59.45	59.45
G263DAA	MW-263	03/11/2003	PROFILE	110	110	0.3	0.3
G263DBA	MW-263	03/11/2003	PROFILE	120	120	10.3	10.3
G263DCA	MW-263	03/11/2003	PROFILE	130	130	20.3	20.3
G263DDA	MW-263	03/11/2003	PROFILE	140	140	30.3	30.3
G263DEA	MW-263	03/11/2003	PROFILE	150	150	40.3	40.3
G263DFA	MW-263	03/11/2003	PROFILE	160	160	50.3	50.3
G263DGA	MW-263	03/11/2003	PROFILE	170	170	60.3	60.3
G263DHA	MW-263	03/12/2003	PROFILE	180	180	70.3	70.3
G263DHA	MW-263	03/12/2003	PROFILE	180	180	70.3	70.3
G263DIA	MW-263	03/12/2003	PROFILE	190	190	80.3	80.3
G263DIA	MW-263	03/12/2003	PROFILE	190	190	80.3	80.3
G263DKA	MW-263	03/13/2003	PROFILE	210	210	90.3	90.3
G263DKA	MW-263	03/13/2003	PROFILE	210	210	90.3	90.3
G263DKD	MW-263	03/13/2003	PROFILE	210	210	100.3	100.3
G263DKD	MW-263	03/13/2003	PROFILE	210	210	100.3	100.3
G263DLA	MW-263	03/13/2003	PROFILE	220	220	100.3	100.3
G263DLA	MW-263	03/13/2003	PROFILE	220	220	100.3	100.3
G263DMA	MW-263	03/13/2003	PROFILE	230	230	110.3	110.3

Profiling methods include: Volatiles and Explosives

Groundwater methods include: Volatiles, Semivolatiles, Explosives,

Pesticides, Herbicides, Metals, and Wet Chemistry

Other Sample Types methods are variable

SBD = Sample Begin Depth, measured in feet bgs

SED = Sample End Depth, measured in feet bgs

BWTS = Depth below water table, start depth, measured in feet

OGDEN_ID	GIS_LOCID	LOGDATE	SAMP_TYPE	SBD	SED	BWTS	BWTE
G263DMA	MW-263	03/13/2003	PROFILE	230	230	110.3	110.3
G263DNA	MW-263	03/13/2003	PROFILE	240	240	120.3	120.3
G263DNA	MW-263	03/13/2003	PROFILE	240	240	120.3	120.3
G263DOA	MW-263	03/13/2003	PROFILE	250	250	130.3	130.3
G263DOA	MW-263	03/13/2003	PROFILE	250	250	130.3	130.3
G263DPA	MW-263	03/13/2003	PROFILE	260	260	140.3	140.3
G263DQA	MW-263	03/13/2003	PROFILE	270	270	160.3	160.3
G264DAA	MW-264	03/10/2003	PROFILE	40	40	6.5	6.5
G264DBA	MW-264	03/10/2003	PROFILE	50	50	16.5	16.5
G264DCA	MW-264	03/10/2003	PROFILE	60	60	26.5	26.5
G264DDA	MW-264	03/10/2003	PROFILE	70	70	36.5	36.5
G264DEA	MW-264	03/10/2003	PROFILE	80	80	46.5	46.5
G264DFA	MW-264	03/10/2003	PROFILE	90	90	56.5	56.5
G264DGA	MW-264	03/11/2003	PROFILE	100	100	66.5	66.5
G264DHA	MW-264	03/11/2003	PROFILE	110	110	76.5	76.5
G264DIA	MW-264	03/11/2003	PROFILE	120	120	86.5	86.5
G264DJA	MW-264	03/11/2003	PROFILE	130	130	96.5	96.5
G264DJD	MW-264	03/11/2003	PROFILE	130	130	96.5	96.5
G264DKA	MW-264	03/11/2003	PROFILE	140	140	106.5	106.5
G264DLA	MW-264	03/11/2003	PROFILE	150	150	116.5	116.5
G264DMA	MW-264	03/11/2003	PROFILE	160	160	126.5	126.5
G264DNA	MW-264	03/11/2003	PROFILE	170	170	136.5	136.5
G264DOA	MW-264	03/12/2003	PROFILE	180	180	146.5	146.5
G264DPA	MW-264	03/12/2003	PROFILE	190	190	156.5	156.5
G264DQA	MW-264	03/14/2003	PROFILE	200	200	166.5	166.5
G264DRA	MW-264	03/14/2003	PROFILE	210	210	176.5	176.5

Profiling methods include: Volatiles and Explosives

Groundwater methods include: Volatiles, Semivolatiles, Explosives,

Pesticides, Herbicides, Metals, and Wet Chemistry

Other Sample Types methods are variable

SBD = Sample Begin Depth, measured in feet bgs

SED = Sample End Depth, measured in feet bgs

BWTS = Depth below water table, start depth, measured in feet

TABLE 3 DETECTED COMPOUNDS-UNVALIDATED SAMPLES COLLECTED 02/14/03 - 03/15/03

OGDEN_ID	LOCID OR WELL	SAMPLED	SAMP_TYPE	SBD	SED	BWTS	BWTE	METHOD	OGDEN_ANALYTE	PDA
W02-13M2D	02-13	03/11/2003	GROUNDWATER	83	93	44.2	54.2	E314.0	PERCHLORATE	
W02-13M1A	02-13	03/11/2003	GROUNDWATER	98	108	58.33	68.33	E314.0	PERCHLORATE	
W258M2A	MW-258	03/07/2003	GROUNDWATER	87	92	42.2	47.2	E314.0	PERCHLORATE	
TW00-2S-A	00-2	03/05/2003	GROUNDWATER	29	35	1.17	7.17	OC21V	CHLOROFORM	
G262DFA	MW-262	03/10/2003	PROFILE	280	280	59.45	59.45	8330N	NITROGLYCERIN	NO
G262DCA	MW-262	03/06/2003	PROFILE	250	250	29.45	29.45	8330N	2,6-DINITROTOLUENE	NO
G262DAA	MW-262	03/06/2003	PROFILE	230	230	9.45	9.45	8330N	4-NITROTOLUENE	NO
G262DAA	MW-262	03/06/2003	PROFILE	230	230	9.45	9.45	8330N	3-NITROTOLUENE	NO
G262DAA	MW-262	03/06/2003	PROFILE	230	230	9.45	9.45	8330N	2,4-DIAMINO-6-NITROTOLUENE	NO
G262DAA	MW-262	03/06/2003	PROFILE	230	230	9.45	9.45	8330N	PENTAERYTHRITOL TETRANITRATE	NO
G262DAA	MW-262	03/06/2003	PROFILE	230	230	9.45	9.45	8330N	NITROGLYCERIN	NO
G262DBA	MW-262	03/06/2003	PROFILE	240	240	19.45	19.45	8330N	PICRIC ACID	NO
G262DBA	MW-262	03/06/2003	PROFILE	240	240	19.45	19.45	8330N	NITROGLYCERIN	NO
G262DCA	MW-262	03/06/2003	PROFILE	250	250	29.45	29.45	8330N	4-AMINO-2,6-DINITROTOLUENE	NO
G262DCA	MW-262	03/06/2003	PROFILE	250	250	29.45	29.45	8330N	PICRIC ACID	NO
G262DCA	MW-262	03/06/2003	PROFILE	250	250	29.45	29.45	8330N	3-NITROTOLUENE	NO
G262DCA	MW-262	03/06/2003	PROFILE	250	250	29.45	29.45	8330N	NITROGLYCERIN	NO
G262DDA	MW-262	03/10/2003	PROFILE	260	260	39.45	39.45	8330N	NITROGLYCERIN	NO
G262DEA	MW-262	03/10/2003	PROFILE	270	270	49.45	49.45	8330N	NITROGLYCERIN	NO
G262DAA	MW-262	03/06/2003	PROFILE	230	230	9.45	9.45	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE	YES*
G262DAA	MW-262	03/06/2003	PROFILE	230	230	9.45	9.45	8330N	PICRIC ACID	NO
G262DAA	MW-262	03/06/2003	PROFILE	230	230	9.45	9.45	8330N	4-AMINO-2,6-DINITROTOLUENE	NO

DATA REPORTED REFLECT CURRENT DATABASE FOR SAMPLES COLLECTED IN SPECIFIED TIMEFRAME. NOT ALL RESULTS ARE COMPLETE.

SBD = SAMPLE COLLECTION BEGIN DEPTH IN FEET BELOW GROUND SURFACE

SED = SAMPLE COLLECTION END DEPTH IN FEET BELOW GROUND SURFACE

BWTS = DEPTH BELOW WATER TABLE, START DEPTH, MEASURED IN FEET

BWTE = DEPTH BELOW WATER TABLE, END DEPTH, MEASURED IN FEET

PDA/YES = Photo Diode Array, Detect Confirmed PDA/NO = Photo Diode Array, Detect Not Confirmed

* = Interference in sample

^{+ =} PDAs are not good matches

TABLE 3 DETECTED COMPOUNDS-UNVALIDATED SAMPLES COLLECTED 02/14/03 - 03/15/03

OGDEN_ID	LOCID OR WELL	SAMPLED	SAMP_TYPE	SBD	SED	BWTS	BWTE	METHOD	OGDEN_ANALYTE	PDA
PT80M1INF4A	MW-80	02/25/2003	PUMP TEST	130	140	86	96	E314.0	PERCHLORATE	

DATA REPORTED REFLECT CURRENT DATABASE FOR SAMPLES COLLECTED IN SPECIFIED TIMEFRAME. NOT ALL RESULTS ARE COMPLETE.

SBD = SAMPLE COLLECTION BEGIN DEPTH IN FEET BELOW GROUND SURFACE

SED = SAMPLE COLLECTION END DEPTH IN FEET BELOW GROUND SURFACE

BWTS = DEPTH BELOW WATER TABLE, START DEPTH, MEASURED IN FEET

BWTE = DEPTH BELOW WATER TABLE, END DEPTH, MEASURED IN FEET

PDA/YES = Photo Diode Array, Detect Confirmed PDA/NO = Photo Diode Array, Detect Not Confirmed

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